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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/756,563	01/08/2001	Susan Chen	IRI05349	6958

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MOTOROLA, INC.
CORPORATE LAW DEPARTMENT - #56-238
3102 NORTH 56TH STREET
PHOENIX, AZ 85018

EXAMINER

NG, CHRISTINE Y

ART UNIT	PAPER NUMBER
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2663

DATE MAILED: 05/03/2004

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/756,563

Applicant(s)

CHEN ET AL.

Examiner

Christine Ng

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,438,141 to Hanko et al.

Referring to claim 1, Hanko et al disclose in Figure 1 a communications network having a plurality of users (Data Sources 103-106) competing for network resources (Communication Medium 102) with a method for allocating the network resources (Communication Medium 102). The method comprises the steps of:

Determining a set of distribution parameters (bits/second or pixels/second) associated with each of the plurality of users (Data Sources 103-106). Data sources 103-106 each determine an estimated bandwidth (bit/second or pixels/second) need using a normal distribution curve (Figure 11). Refer to Column 10, line 60 to Column 11, line 18; Column 13, line 59 to Column 14, line 51 and Figures 4 and 7.

Transmitting, from each of the plurality of users (Data Sources 103-106) to a network resource manager (Data Receiver 101), a request for network access and an estimated set of distribution parameters (bits/second or pixels/second) associated with a

particular one of the plurality of users (Data Sources 103-106). The data receiver 101 receives estimates of bandwidth needs from the data sources 103-106 when data sources request network access for transmitting data. Refer to Column 8, line 66 to Column 9, line 3 and Column 10, lines 54-55.

Predicting whether sufficient network resources (Communication Medium 102) exist to accommodate the request based on a plurality of the estimated set of distribution parameters (bits/second or pixels/second). After receiving the bandwidth estimates from data sources 103-106, the data receiver 101 determines how to allocate the resources of communication medium 102. If the cumulative bandwidth request from all data sources is less than the allocatable bandwidth, the data receiver 101 performs the steps of Figure 5. Refer to Column 11, lines 19-40. If not, the data receiver 101 performs the steps of Figure 6. Refer to Column 11, line 41 to Column 12, line 4.

Allocating the network resources (Communication Medium 102) in accordance with the prediction. The data receiver 101 allocates bandwidth of the communications medium based on the comparison of the cumulative bandwidth request from all data sources to the allocatable bandwidth. Refer to Column 11, lines 19-40; Column 11, line 41 to Column 12, line 4 and Figures 5 and 6.

Referring to claim 2, Hanko et al disclose in Figure 2 that the method further comprises transmitting, from the network resource manager (Data Receiver 101) to the plurality of users (Data Sources 103-106), information indicative of the allocation of the network resources (Communication Medium 102). The data receiver 101 "informs each data source of its newly determined bandwidth allocation" (Column 10, lines 58-59).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 6,438,141 to Hanko et al in view of U.S Patent No. 6,597,705 to Rezaifar et al.

Hanko et al do not disclose that the step of allocating network resources comprises allocating network resources in a cellular telephone network, and further wherein the plurality of users comprise a corresponding plurality of cellular telephones.

Rezaifar et al disclose in Figure 6 that the a step of allocating network resources (rate request or bandwidth request) comprises allocating network resources in a cellular telephone network (Figure 1), and further wherein the plurality of users (mobile stations) comprise a corresponding plurality of cellular telephones. The mobile station requests a transmission bit rate from the base station based on the traffic data to be transmitted. The base station collects the requests from all mobile stations it serves and allocates bandwidth to optimize resource allocation. Refer to Column 5, lines 33-43. The interference seen by a mobile station depends on the bit rates of all users served by the same base station. By controlling the bit rates, the base station can minimize interference between users and maintain a user's QOS requirement. Refer to Column 7, lines 1-15. Therefore, it would have been obvious to one of ordinary skill in the art at

the time the invention was made to include that allocating network resources comprises allocating network resources in a cellular telephone network; the motivation being that the optimal allocation of bandwidth in a cellular telephone network between cellular phones is necessary in order to minimize interference between users and maintain a user's QOS requirement.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,438,141 to Hanco et al in view of U.S Patent No. 6,038,214 to Shionozaki.

Hanco et al do not disclose that the method further comprises providing a preemption process to allow a high-priority user to preempt service from a low-priority user.

Shionozaki discloses in Figure 3 providing a preemption process to allow a high-priority user to preempt service from a low-priority user. When a communications session demands an increase in the amount of resource allocated to it (Step S2) and it cannot be done, a preemption is performed to shift the resources from a lower priority session to the demanding communication session (Steps S5-S6). Refer to Column 5, lines 14-49. By having a mechanism to enable "preferential allocation of the resource to the session of the top priority", it is possible to "reflect to some extent the degrees of importance of applications upon the whole system" by allocating "greater amount of resource preferentially to applications of greater importance" (Column 4, lines 38-48). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the method further comprises providing a preemption process to allow a high-priority user to preempt service from a low-priority

user; the motivation being that this allows a user with more important and time-critical data transmissions to be allocated bandwidth before any other user.

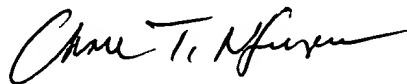
Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Ng whose telephone number is (703) 305-8395. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nguyen Chau can be reached on (703) 308-5340. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. Ng ^w
April 29, 2004



CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
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